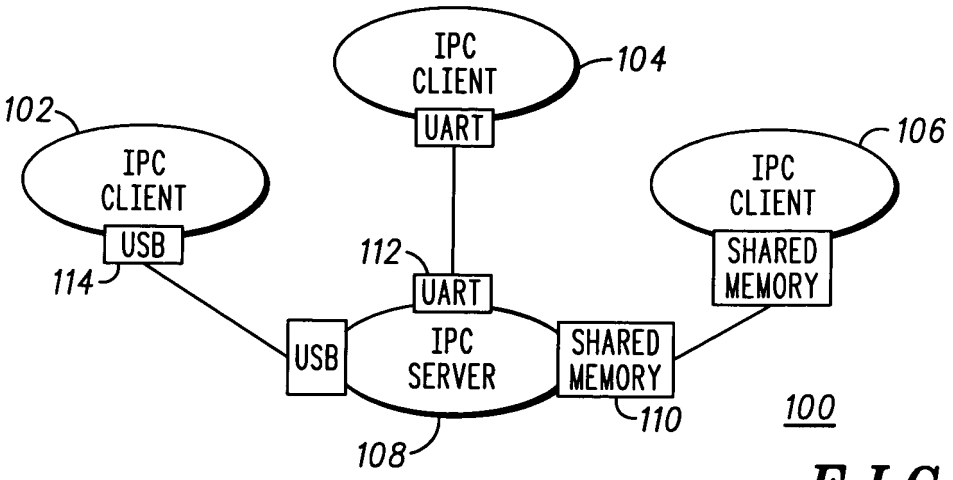

FIG. 1

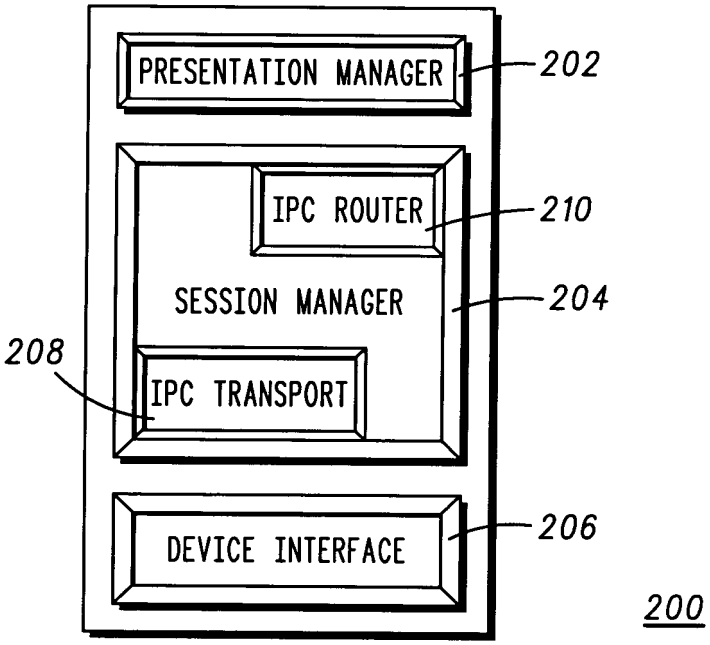

FIG. 2

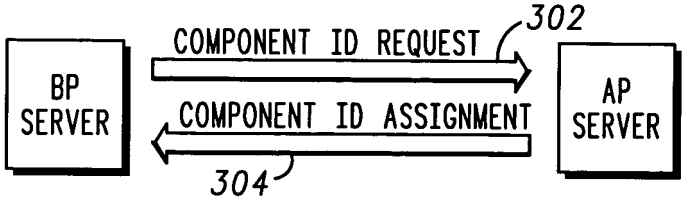

FIG. 3

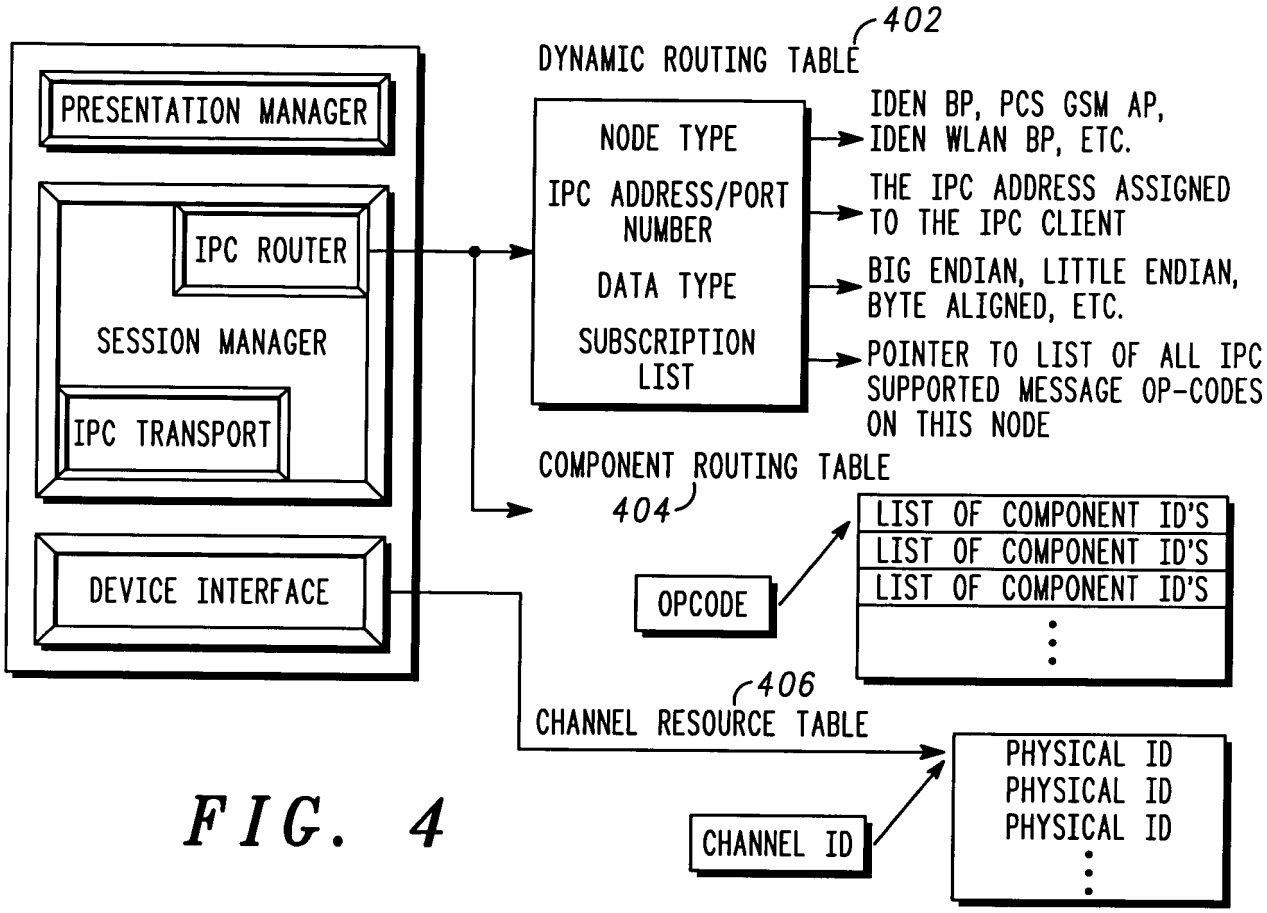
402
DYNAMIC ROUTING TABLE
PRESENTATION MANAGER
IPC ROUTER
SESSION MANAGER
IPC TRANSPORT
DEVICE INTERFACE
NODE TYPE
IPC ADDRESS/PORT NUMBER
DATA TYPE
SUBSCRIPTION LIST
IDEN BP, PCS GSM AP, IDEN WLAN BP, ETC.
THE IPC ADDRESS ASSIGNED TO THE IPC CLIENT
BIG ENDIAN, LITTLE ENDIAN, BYTE ALIGNED, ETC.
POINTER TO LIST OF ALL IPC SUPPORTED MESSAGE OP-CODES ON THIS NODE
COMPONENT ROUTING TABLE
404
OPCODE
LIST OF COMPONENT ID'S
LIST OF COMPONENT ID'S
LIST OF COMPONENT ID'S
406
CHANNEL RESOURCE TABLE
CHANNEL ID
PHYSICAL ID
PHYSICAL ID
PHYSICAL ID

FIG. 4

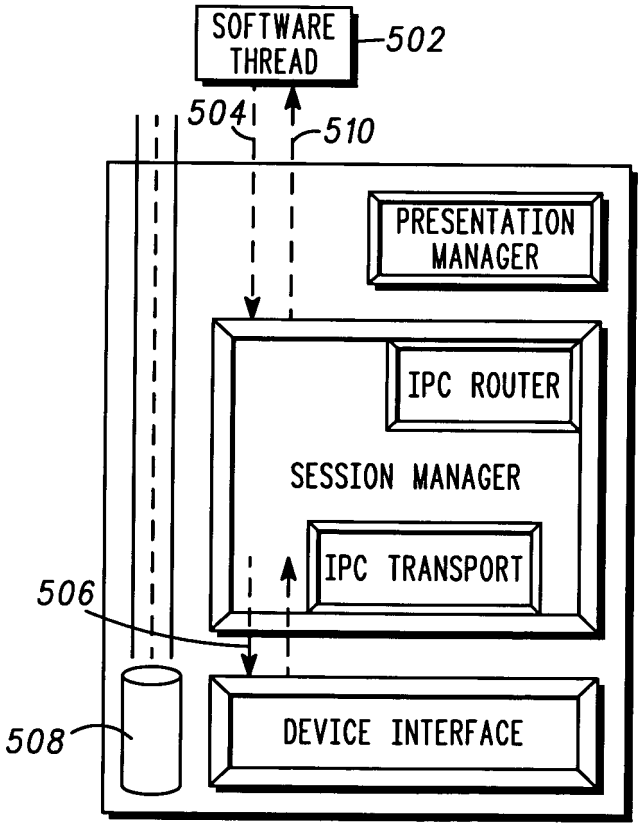
SOFTWARE THREAD
502
504
510
PRESENTATION MANAGER
IPC ROUTER
SESSION MANAGER
IPC TRANSPORT
506
508
DEVICE INTERFACE

FIG. 5

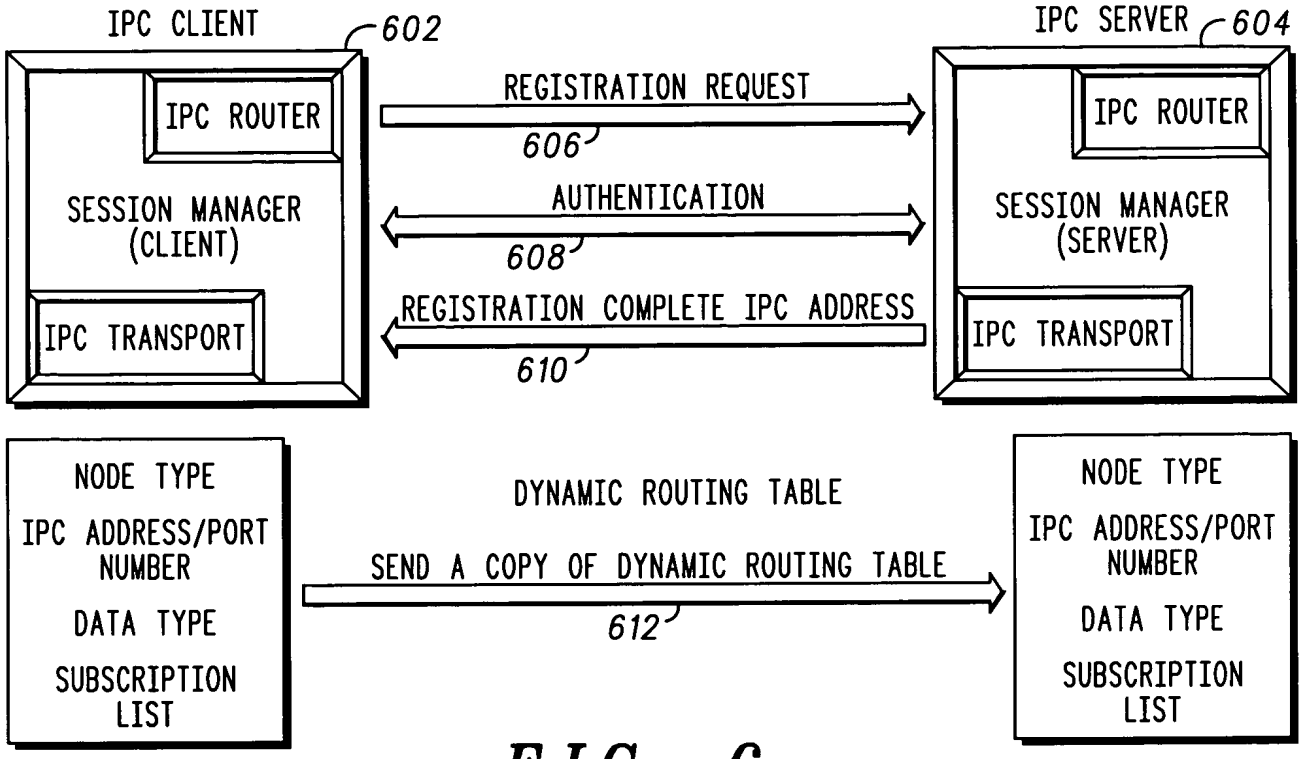
IPC CLIENT
602
IPC ROUTER
SESSION MANAGER (CLIENT)
IPC TRANSPORT
REGISTRATION REQUEST
606
AUTHENTICATION
608
REGISTRATION COMPLETE IPC ADDRESS
610
IPC SERVER
604
IPC ROUTER
SESSION MANAGER (SERVER)
IPC TRANSPORT
NODE TYPE
IPC ADDRESS/PORT NUMBER
DATA TYPE
SUBSCRIPTION LIST
DYNAMIC ROUTING TABLE
SEND A COPY OF DYNAMIC ROUTING TABLE
612
NODE TYPE
IPC ADDRESS/PORT NUMBER
DATA TYPE
SUBSCRIPTION LIST

FIG. 6

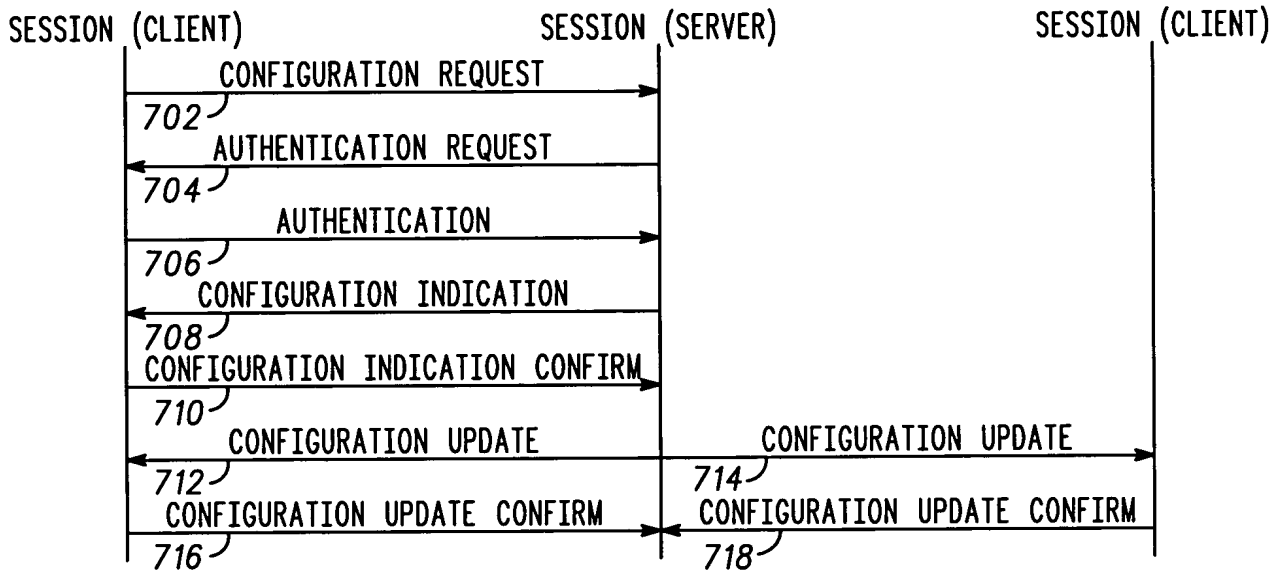
SESSION (CLIENT)
SESSION (SERVER)
SESSION (CLIENT)
CONFIGURATION REQUEST
702
AUTHENTICATION REQUEST
704
AUTHENTICATION
706
CONFIGURATION INDICATION
708
CONFIGURATION INDICATION CONFIRM
710
CONFIGURATION UPDATE
CONFIGURATION UPDATE
712
714
CONFIGURATION UPDATE CONFIRM
CONFIGURATION UPDATE CONFIRM
716
718

FIG. 7

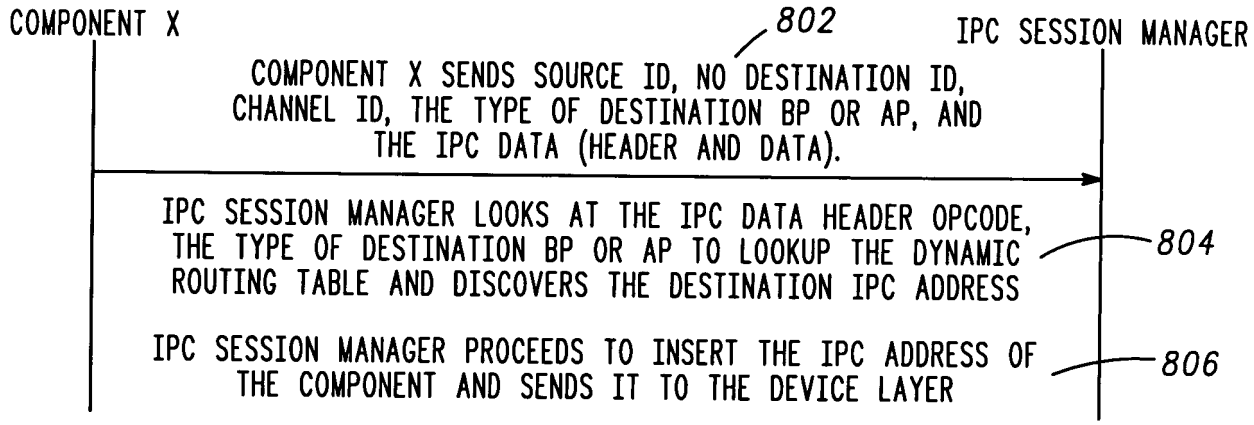
COMPONENT X
802
IPC SESSION MANAGER
COMPONENT X SENDS SOURCE ID, NO DESTINATION ID, CHANNEL ID, THE TYPE OF DESTINATION BP OR AP, AND THE IPC DATA (HEADER AND DATA).
IPC SESSION MANAGER LOOKS AT THE IPC DATA HEADER OPCODE, THE TYPE OF DESTINATION BP OR AP TO LOOKUP THE DYNAMIC ROUTING TABLE AND DISCOVERS THE DESTINATION IPC ADDRESS
804
IPC SESSION MANAGER PROCEEDS TO INSERT THE IPC ADDRESS OF THE COMPONENT AND SENDS IT TO THE DEVICE LAYER
806

FIG. 8

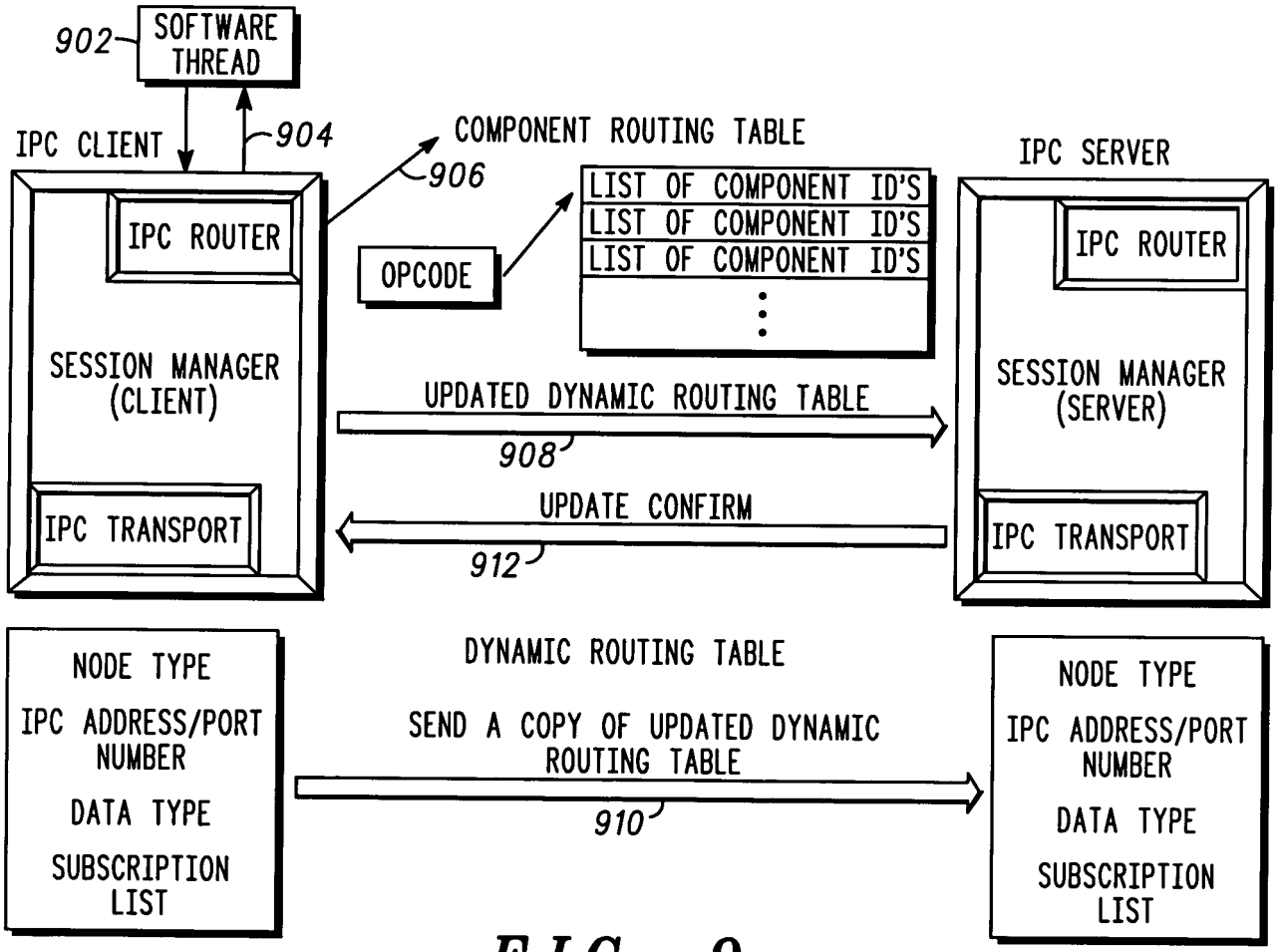
902
SOFTWARE THREAD
IPC CLIENT
904
COMPONENT ROUTING TABLE
906
IPC SERVER
IPC ROUTER
OPCODE
LIST OF COMPONENT ID'S
LIST OF COMPONENT ID'S
LIST OF COMPONENT ID'S
IPC ROUTER
SESSION MANAGER (CLIENT)
UPDATED DYNAMIC ROUTING TABLE
908
SESSION MANAGER (SERVER)
UPDATE CONFIRM
912
IPC TRANSPORT
IPC TRANSPORT
NODE TYPE
IPC ADDRESS/PORT NUMBER
DATA TYPE
SUBSCRIPTION LIST
DYNAMIC ROUTING TABLE
SEND A COPY OF UPDATED DYNAMIC ROUTING TABLE
910
NODE TYPE
IPC ADDRESS/PORT NUMBER
DATA TYPE
SUBSCRIPTION LIST

FIG. 9

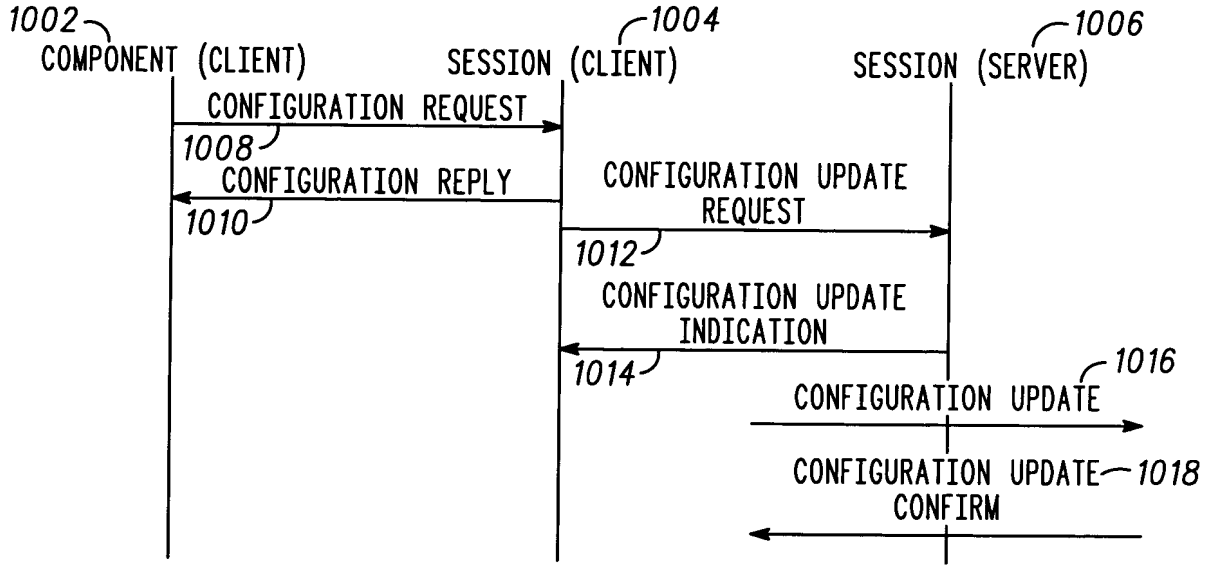
1002
COMPONENT (CLIENT)
1004
SESSION (CLIENT)
1006
SESSION (SERVER)
CONFIGURATION REQUEST
1008
CONFIGURATION REPLY
1010
CONFIGURATION UPDATE REQUEST
1012
CONFIGURATION UPDATE INDICATION
1014
1016
CONFIGURATION UPDATE
CONFIGURATION UPDATE CONFIRM
1018

FIG. 10

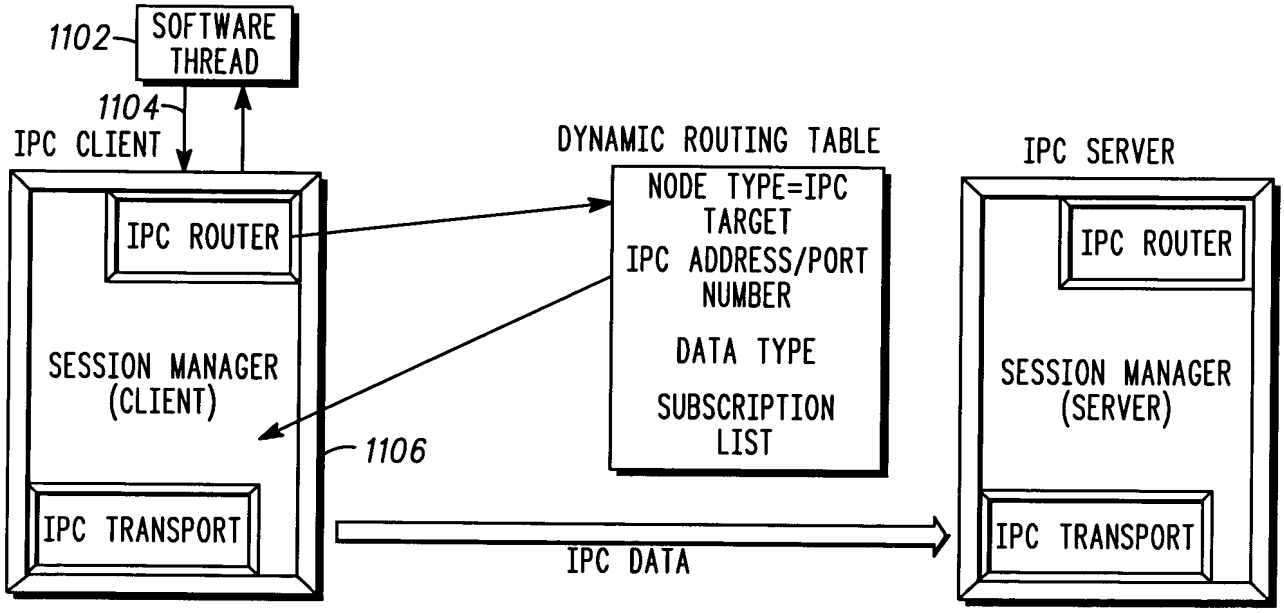
1102
SOFTWARE THREAD
1104
IPC CLIENT
IPC ROUTER
SESSION MANAGER (CLIENT)
1106
IPC TRANSPORT
DYNAMIC ROUTING TABLE
NODE TYPE=IPC TARGET
IPC ADDRESS/PORT NUMBER
DATA TYPE
SUBSCRIPTION LIST
IPC SERVER
IPC ROUTER
SESSION MANAGER (SERVER)
IPC TRANSPORT
IPC DATA

FIG. 11

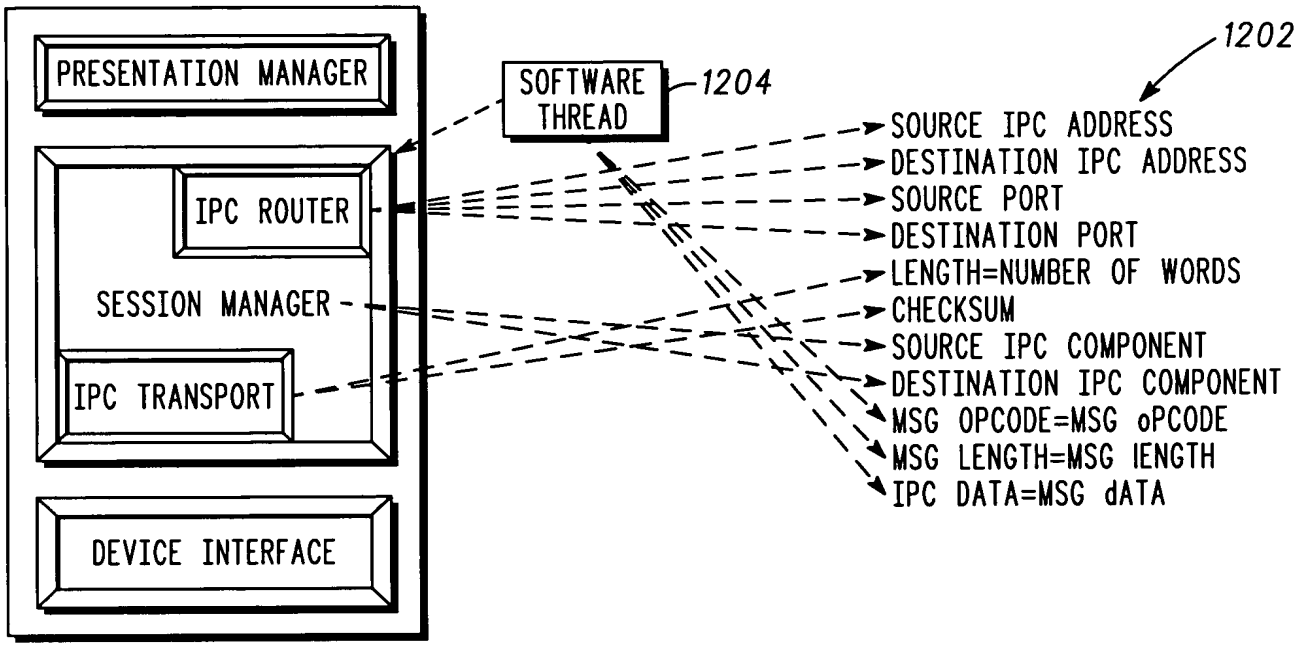
PRESENTATION MANAGER
IPC ROUTER
SESSION MANAGER
IPC TRANSPORT
DEVICE INTERFACE
SOFTWARE THREAD
1204
1202
SOURCE IPC ADDRESS
DESTINATION IPC ADDRESS
SOURCE PORT
DESTINATION PORT
LENGTH=NUMBER OF WORDS
CHECKSUM
SOURCE IPC COMPONENT
DESTINATION IPC COMPONENT
MSG OPCODE=MSG oPCODE
MSG LENGTH=MSG lENGTH
IPC DATA=MSG dATA

FIG. 12

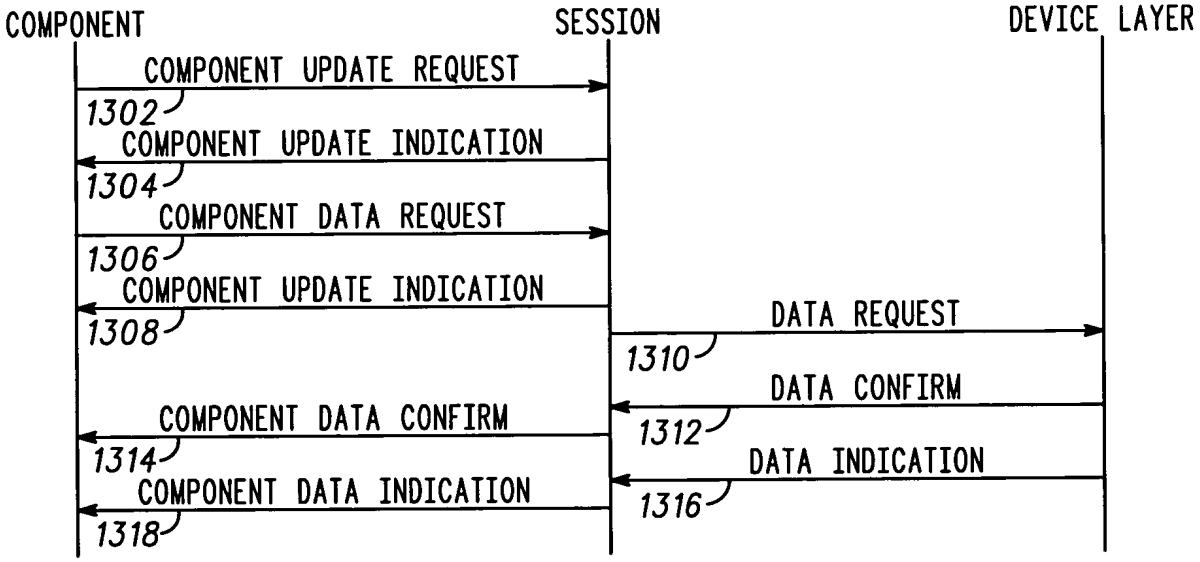
COMPONENT
SESSION
DEVICE LAYER
COMPONENT UPDATE REQUEST
1302
COMPONENT UPDATE INDICATION
1304
COMPONENT DATA REQUEST
1306
COMPONENT UPDATE INDICATION
1308
DATA REQUEST
1310
DATA CONFIRM
1312
COMPONENT DATA CONFIRM
1314
DATA INDICATION
1316
COMPONENT DATA INDICATION
1318

FIG. 13

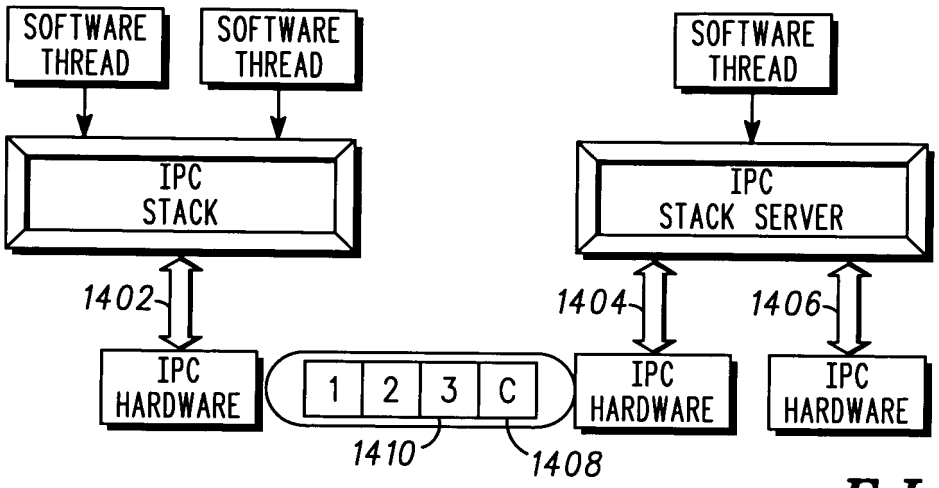

FIG. 14

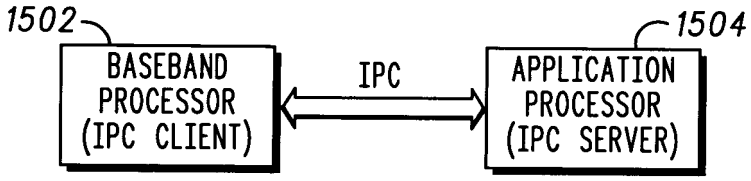

FIG. 15

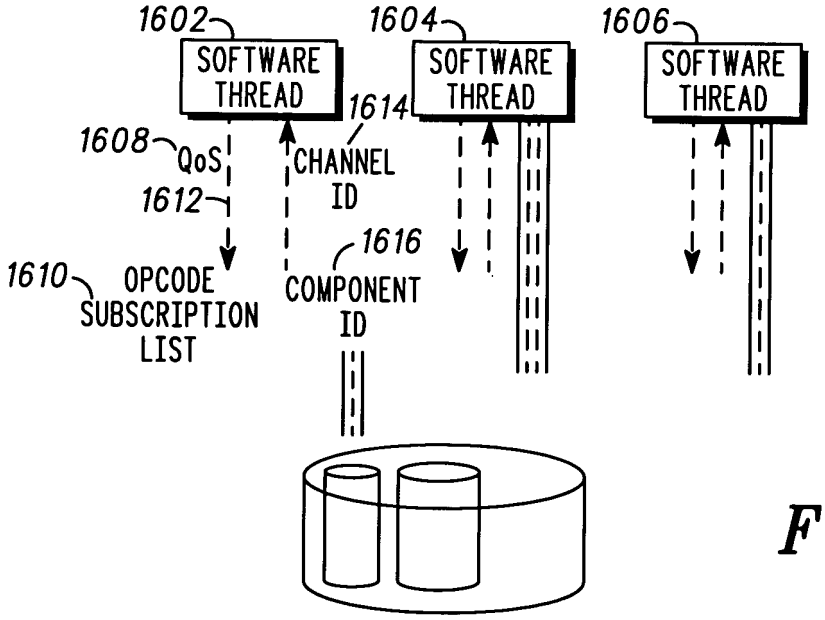

FIG. 16

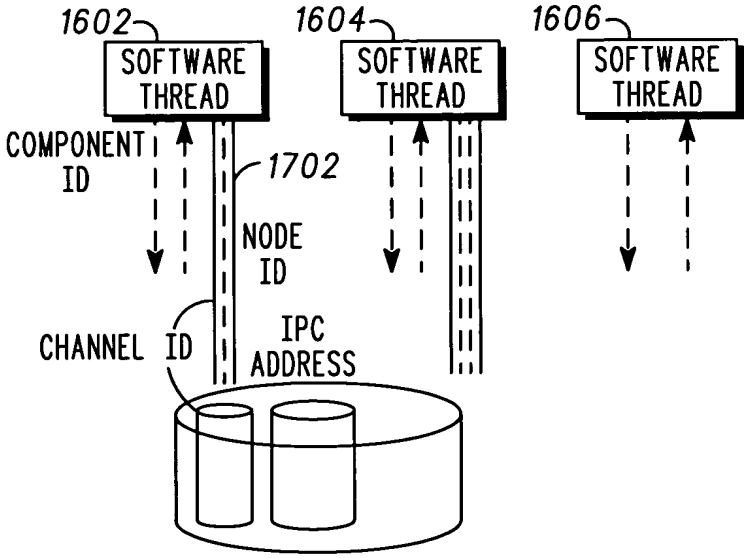
1602
SOFTWARE THREAD
1604
SOFTWARE THREAD
1606
SOFTWARE THREAD
COMPONENT ID
1702
NODE ID
CHANNEL ID
IPC ADDRESS

FIG. 17

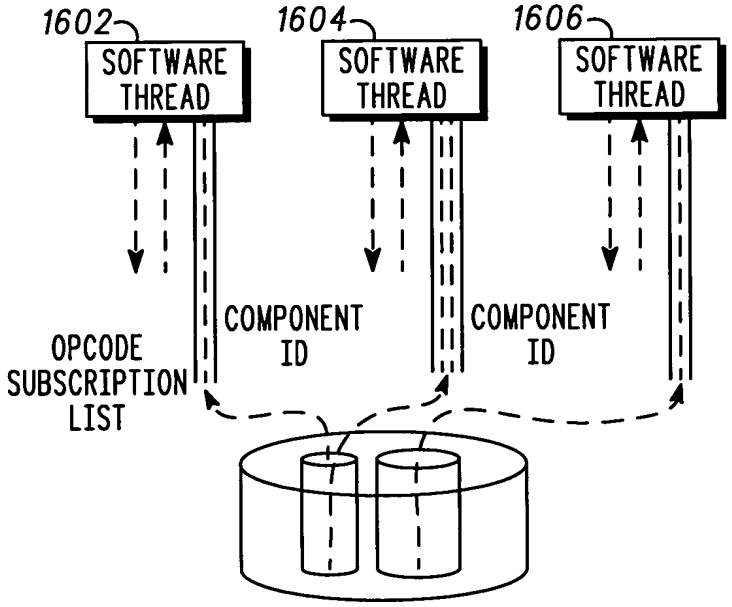
1602
SOFTWARE THREAD
1604
SOFTWARE THREAD
1606
SOFTWARE THREAD
COMPONENT ID
COMPONENT ID
OPCODE SUBSCRIPTION LIST

FIG. 18

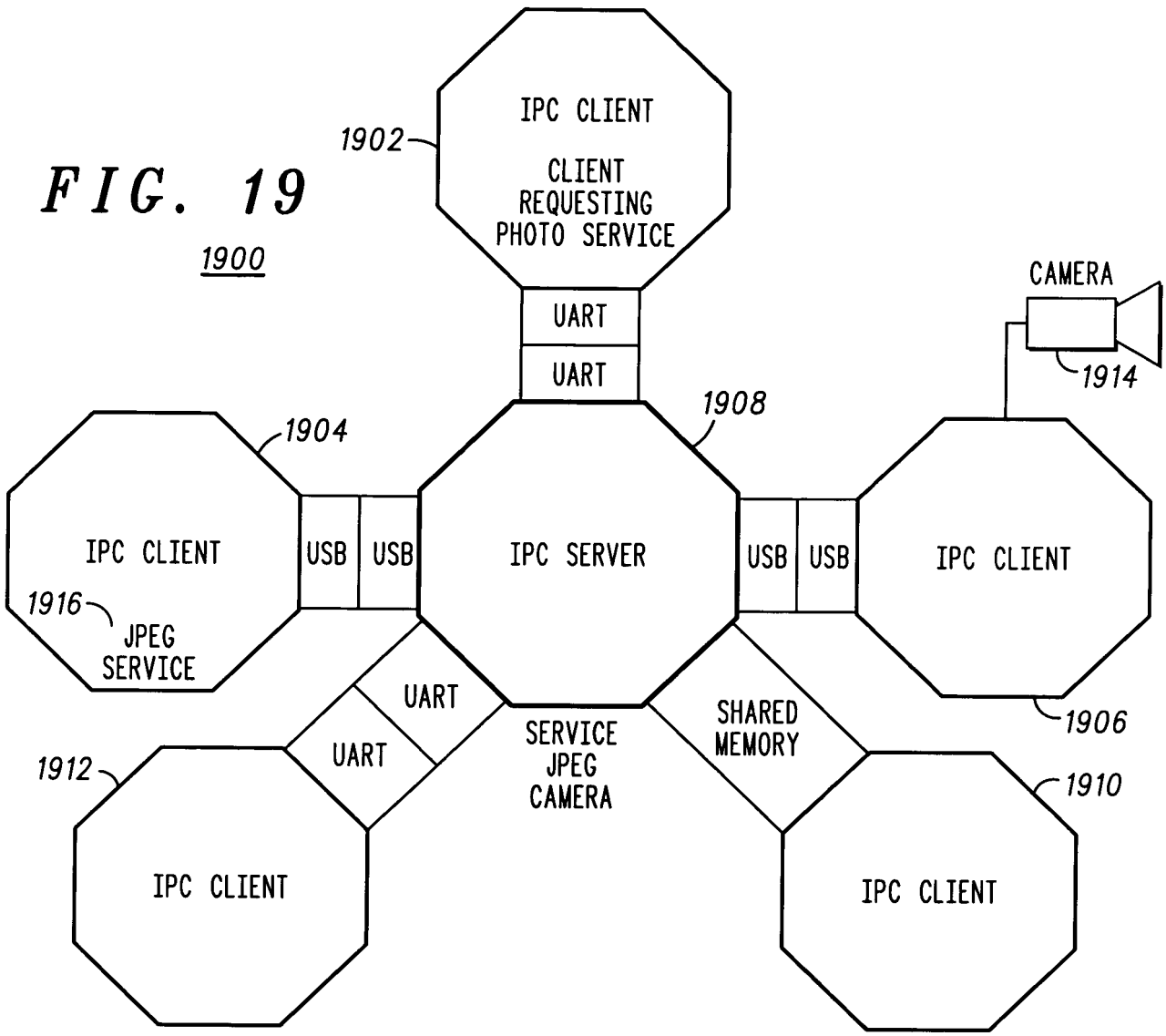

FIG. 19

1900

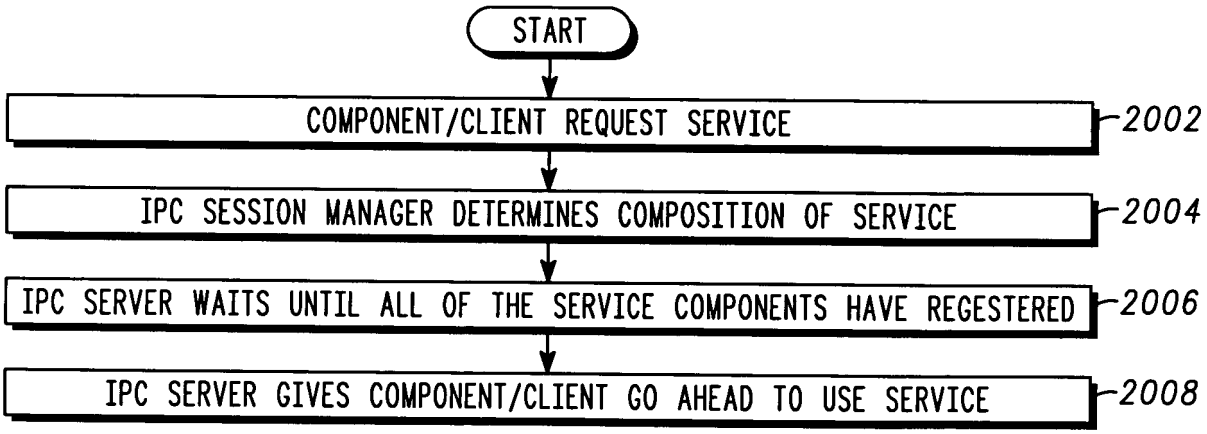

FIG. 20